trends in
MICROBIOLOGY
VIRULENCE, INFECTION AND PATHOGENESIS

Subject Index

Author Index

Books Reviewed

1997

Vol 5
Issues 1–12

ISSN 0966 842X

ELSEVIER
TRENDS
JOURNALS

Trends in Microbiology

Elsevier Trends Journals
68 Hills Road
Cambridge
UK CB2 1LA
Tel: +44 1223 315961
Fax: +44 1223 464430
+44 1223 321410
E-mail: tim@elsevier.co.uk

Advisory Editorial Board

Norma Andrews, New Haven, USA
Barry Bloom, New York, USA
Ulla Bonas, Gif sur Yvette, France
Tony Dean, Chicago, USA
Brett Finlay, Vancouver, Canada
Vincent Fischetti, New York, USA
Bryan Grenfell, Cambridge, UK
Masanori Hayami, Kyoto, Japan
Kathryn Holmes, Denver, USA
Stefan Kaufmann, Berlin, Germany
Ulrich Kosinowski, Heidelberg, Germany
John Mekalanos, Boston, USA
Glen Nemerow, La Jolla, USA
Donald Nuss, College Park, USA
Phillippe Sansonetti, Paris, France
Robin Weiss, London, UK

Editors Caroline Ash and Alison Stewart

Assistant Editor Michaela Blackford

Editorial Administrator Anne Ward

Publisher Peter Desmond

Copyright © 1998 Elsevier Science Ltd. All rights reserved.

This journal and the individual contributions contained in it are protected by the copyright of Elsevier Science Ltd. Except as outlined in the terms and conditions, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the Publisher, Elsevier Trends Journals, 68 Hills Road, Cambridge, UK CB2 1LA.

Subject Index

L – Letter

A
ActA protein 272
actin 142, 272, 306 (L)
Actinobacillus actinomycetemcomitans 224
adenoviruses 115, 211, 232
adhesion
  and bacterial gene expression 43, 44
  Campylobacter 96
  enteropathogenic *Escherichia coli* and epithelial cells 109
  neisserial 217
  pili 130
  Plasmodium 52
ADP-ribosylating toxins 284
Agrobacterium tumefaciens pili 130
airS (attachment and iron-regulation sensor) 44
amantidine 60
aminoglycoside antibiotics, resistance 234
amphotericin B 27, 373
anamnestic sensitization hypothesis 409
anthrax toxin 204
antibacterial agents
  DNA gyrase as a target 102
  oxazolidinones 196
  see also antibiotics, antimicrobial drugs
antibacterial drug design, genome-based strategies 379
antibiotic activity, β-lactams 41
antibiotic resistance 309, 340 (L)
  gene cassettes 389
antibody neutralization of viruses 229
antibody production, long-term 180 (L)
antibody-dependent enhancement of infection 409
antifungal resistance 372
antigen 85 complex 384
antimicrobial drug resistance 309, 337, 340 (L), 372, 379
antimycobacterial drugs 385
antiviral activity, cyclopentenone prostanoids 276
antiviral therapies to the common cold 60
apoptosis
  bacterial-induced 201
  inactivation of p53 by tumor viruses 115, 181 (L)
  shigellosis 263 (L)
Aquiflex strain VF5, genome sequencing 91
arbitrary-primed and differential-display polymerase chain reaction 23
attachment and effacing lesions 110
autoimmune inflammation and *Helicobacter pylori* 70
avirulence proteins 394
  type III secretion 489

B
B cells, memory 180 (L)
Bacillus subtilis, chromosome partitioning and sporulation 295
bacterial evolution, mutators 427, 428
bacterial outer membrane as a drug barrier 37
bacterial toxins and Rho proteins 282
bacteria-like organisms 497
bacteriophages, therapy and prophylaxis 268
baculovirus 142
biofilms 435, 475 (L)
blue light signal transduction 458
Borrelia burgdorferi 137, 467
bovine spongiform encephalopathy 27, 333, 421
bundle-forming pili 109
Butyrivibrio spp. 483
BZLF1 gene 399

C
Campylobacter–host cell interactions 96
cancer *see* leukemogenesis, tumorigenesis
Candida, drug resistance 372
Candida albicans 253, 254, 450
canine distemper virus 120
Caulobacter crescentus 295
CCR5 chemokine receptor 89, 300, 302
$CD4^+$ T cells 180 (L)
$CD8^+$ T cells 259, 260
cell cycle, *Theileria* spp. 169, 170
cell entry / invasion
  Actinobacillus actinomycetemcomitans 224
  Campylobacter 96
  neisserial 217
  Plasmodium 52
  role of Rho proteins 282
  Salmonella 127, 129
  viral fusion proteins 349
  virus receptors 257, 258
cell-mediated immunity 3
cell-wall polysaccharides 163, 178 (L)
cerato-ulmin 406, 432 (L)
chemokine receptors 88, 300, 302
Chlamydia, inclusion 288, 305 (L)
cholera toxin 455
chromosome segregation, bacterial 295
circadian clock and light perception 459
circumsporozoite protein 52
Clostridium difficile 247, 284
Clostridium perfringens α toxin 156, 265 (L)
common cold viruses, therapies 58
co-receptors, HIV 88, 300, 302
coronaviruses and demyelinating diseases 9, 139 (L), 140 (L)
corticosteroids, common cold virus therapies 61
Corynebacterium pseudotuberculosis 159
coumarins 104
countertranscript RNAs 441
Creutzfeldt–Jakob disease, new variant 422
Crithidia fasciculata 189
cromolyns, common cold virus therapies 61
CXCR4 chemokine receptor 89, 300, 302
cyclin-dependent protein kinases 169, 170
cyclopentenone prostanoids 276
cytokines 409, 454
cytolysins 86, 363
cytomegalovirus 211, 212
cytoskeleton 110, 142, 282, 306 (L)
cytotoxic necrotizing factors 286
cytotoxic T lymphocyte response 211, 212
  and evolution of genetically stable viruses 64, 92 (L), 93 (L)
cytotoxin-associated gene A (*cag*) 205, 222 (L), 262, 264 (L)

D
degenerate-primer polymerase chain reaction and direct sequencing 22
demyelinating diseases, animal models 9, 139 (L), 140 (L)
dengue virus diseases 409
diaminopimelate labelling 511
diarrhea
  Shigella 201
  Campylobacter–host cell interactions 96
  enteropathogenic *Escherichia coli* 113
  rotaviruses 176
differential display 511
differential fluorescence induction 511
dimorphism 450
diphtheria toxin, apoptosis 204
DNA double-strand break repair 173
DNA gyrase 102, 324
DNA replication, rolling circle plasmids 440
DNA restriction and modification 472
DNA supercoiling, thermotolerance 323
DNA topoisomerase I 324
DNA topoisomerase IV 106
drug discovery, genome-based strategies 379
drug resistance
  aminoglycoside antibiotics 234
  antifungal 372
  biological cost 337
  natural functions of multidrug transporters 309, 340 (L)
  replacement therapies for vancomycin 240
dsbA gene 109
Duffy binding proteins 55
Dutch elm disease 406, 432 (L)

E
endocytotic pathway, virus entry 349
endogenous retroviruses 313, 339 (L), 385 (L)
enzootic nasal tumour virus 479
epidemiology
  bovine spongiform encephalopathy 421
  streptococcal diseases 5
epithelial cells
  colonization and invasion by *Campylobacter* 96
  and enteropathogenic *Escherichia coli* 109

Epstein–Barr virus
immune evasion 211
immune selection 65, 92 (L), 93 (L)
interaction with p53 115
reactivation 399
erythrocyte-binding antigen 175 55
erythrocytes and *Plasmodium falciparum* 54, 463, 465
Escherichia coli
adhesion and gene expression 44
bacteriophage therapy 268
drug resistance 338
enteropathogenic 109
genome sequence 135, 433
horizontal gene transfer 318
selfish operons 357
ethylene, plant defence systems 299
everninomycins 246
exotoxins 454

F
fibrinolysis 466
Fibrobacter succinogenes 484
filamentous growth, budding yeast 450
fimbriae
type IV 109
see also pili
flagellum assembly apparatus 489
flocculation, yeast 453
fluconazole resistance 373
fluoroquinolones 247
foot-and-mouth disease virus 231
Friend virus susceptibility genes 316, 339 (L)
fungi 405, 496
fusin 258
fusion pores 349

G
gene cassettes 389
genetic variation
cytotoxic T lymphocyte responses 68, 92 (L), 93 (L)
microbial populations 304
genome evolution, *Helicobacter pylori* 473
genome maps, mammals 48
genomics 91, 135
Escherichia coli 135, 433
Haemophilus influenzae 135
Helicobacter pylori 468
Mycobacterium spp. 429
Mycoplasma spp. 413
new strategies for antibacterial drug design 379
Pyrococcus furiosis 91
Rhizobium 0.5 Mb plasmid pNGR234a 341
Streptococcus pyogenes 5
Geosiphon pyriforme 498
Gigaspora margarita 498
glycopeptide resistance 240
glycylcyclines 247
Gram-negative bacteria
permeability of outer membrane 37
pili 130
type III secretion systems 148
Gram-positive pathogens, oxazolidinones 196
green fluorescent proteins, intracellular gene expression 361
GTP-binding proteins and bacterial toxins 282
guide RNAs 1, 2, 190

H
Haemophilus influenzae, genome sequencing 135
heat-shock proteins 277, 448
heat-shock response, DNA supercoiling 232
Helicobacter pylori
genome sequence 468
molecular mimicry of host proteins 70
pathogenesis 262
pathogenicity islands 205, 222 (L), 264 (L)
hemifusion 349
hemin storage locus (*hms*) 172
hepadnaviruses 447
hepatitis A virus 45, 47
hepatitis B virus 67, 92 (L), 155
hepatocytes 52
herpes simplex virus
acyclovir resistance 338
immune evasion 211
influence on the cytoskeleton 306 (L)
receptors 257, 258
herpes virus entry mediator 257, 258
heterothallism 451
HIV
co-receptor expression 88, 300, 302
Gag protein and cytoskeletal rearrangements 146
immunotherapy 301, 302
and microbial infections 326
quantification of viral reservoirs 215
resistance to infection 2, 4
horizontal gene transfer
Helicobacter pylori 473
Salmonella 318, 343, 431 (L)
selfish operons 355
Vibrio cholerae 163
host-range expansion, canine distemper virus 120
host–pathogen interactions
Actinobacillus actinomycetemcomitans 224
adhesion 43, 44, 130
apoptosis 201
bacterial avirulence proteins 394
bacterial exotoxins and cytokine regulation 454
enteropathogenic *Escherichia coli* and epithelial cells 109
hepatitis A receptor 45, 47
HIV resistance 2, 4
Mycobacterium tuberculosis and oxidative stress 367
neisseria 220
Salmonella invasion 127, 129
streptococci 5
type III secretion systems 152, 489
host susceptibility, genetics 48
Hrp pilus 491
human herpesvirus 8 424, 425
human papillomavirus 115
human T-cell lymphotropic virus type 1 (HTLV-1) 67, 92 (L), 93 (L)
humoral immunity, long-term 180 (L)
hydrophobins 405, 432 (L)
hypersensitive reaction, type III secretion 489

I
immune activation and HIV 327
immune evasion, viruses 211, 212
immune selection and virus evolution 64, 92 (L)
immunity, T-cell memory 259, 260
immunoglobulin A protease 220
immunosuppression, measles-virus-induced 85
inclusion, *Chlamydia* 288, 305 (L)
influenza type A 60
influenza virus hemagglutinin 229, 349
in situ hybridization, quantification of HIV infections 215
insect vectors, transmission factors 171
integrons 389
intercellular communication, group behaviour in bacteria 184
interferon γ receptor gene 49
interleukin 1 203
interleukin 6 424, 425
interleukin 12 85
Internet resources
American Society of Microbiology 51
cell and molecular biology online 183
cells alive! 95
Centers for Disease Control 95
HIV resources 267
HMS Beagle 434
HotMolecBase 223
Jack Brown's bugs in the news 223
metabolic pathway predictions 414
Methanococcus jannaschii functions 388
microbial genomes 267, 341, 386, 433
oral microbiology 308
PEDANT 341
ProMED 388
The tree of life 183
virus databases on-line 434
virus ultrastructure 51
WHO malaria database 141
World Wide Web server for virology 141
intimin, enteropathogenic *Escherichia coli* 112
intracellular pathogens
cytolysins 86
gene expression 360
intracellular survival
Campylobacter 96
Chlamydia 288, 305 (L)
neisseria 220
invasion plasmid antigen (Ipa) 202, 263 (L)
in vivo expression studies 23, 509
iridoviruses 142
iron acquisition, *Helicobacter pylori* 471
isoniazid 367

J
jaagsiekte sheep retrovirus 478

K
Kaposi's sarcoma-associated herpesvirus 424, 425

L
β-lactams 39, 247
las quorum sensing system 132, 134
latent infection, Epstein–Barr virus 399

Leishmania amazonensis 364
Leishmania tarentolae 189
leishporin 364
leukemogenesis 74
leukocytotoxin 226
Lewis x and y blood group antigens 70
lipid rearrangements, viral membrane fusion 349
lipopolysaccharide 37, 70, 472
Listeria monocytogenes 87, 157, 265 (L), 272
listeriolysin 87, 455
listeriosis 204
LrcQ 43, 44
luciferases as markers of intracellular gene expression 360
lutrophin receptor 218
lux gene regulation 184

M
macrophage inflammatory proteins MIP-1α and MIP1-β 88
macropinocytosis 127, 129
major histocompatibility complex, viral immune evasion 211, 212
malaria
  cell invasion by *Plasmodium* 52
  host resistance 213
  transport and trafficking within erythrocytes 463, 465
  WHO malaria database 141
mathematical models
  measles persistence 513
  vaccination 14
matrix (M) protein 146
measles 14, 85, 513
membrane fusion, viral fusion proteins 349
methyl-directed mismatch repair 427
methyl-jasmonate 297
methyl salicylate 299
mink cell focus-inducing viruses 76
mitochondrial RNA editing 189
mitosis, chromosome segregation 295
mobile elements 389
modulins 455
molecular epidemiology, canine distemper virus 121
molecular mimicry, *Helicobacter pylori* 70
Moloney murine leukemia virus 74
morbillivirus, canine distemper virus 120
motility, *Listeria monocytogenes* 272
mouse hepatitis virus 9, 139 (L), 140 (L)
mouse mammary tumor virus (MMTV) 385 (L)
multidrug resistance
  biological cost 337
  Mycobacterium tuberculosis 430
  oxazolidinones 196
multidrug transporters, natural functions 309, 340 (L)
multiple myeloma 424
multiple sclerosis, murine coronavirus model 9, 139 (L), 140 (L)
murine leukaemia viruses 315
mutators 427, 428
Mycobacterium leprae, genome sequencing 429
Mycobacterium tuberculosis
  cell wall biosynthesis 383
  genome sequencing 429
  and HIV disease progression 329
  oxidative stress response 367
  rifampicin resistance 337
mycolyltransferases 384
Mycoplasma genes, genome sequence annotation 413
Mycoplasma genitalium, genome sequencing 135
Mycoplasma pneumoniae, mutators 427, 428
mycorrhizal fungi and bacteria 496

N
Neisseria spp., adhesion and invasion 217
Neurospora crassa, blue light signal transduction 458
NRAMP1 gene 49
nuclear factor κB 280

O
oncogenesis *see* leukemogenesis, tumorigenesis
opacity-associated protein (Opa) 218, 220
operons 355
Ophiostoma ulmi 406, 432 (L)
oral microbiology
  biofilms 435, 475 (L)
  Internet resources 308
  periodontal disease 224
oxazolidinones 196, 246

P
p53 115, 181 (L)
paramyxoviruses 142
parasitophorous vacuole 55, 288, 463
PAS domains 459
pathogenesis
  dengue virus diseases 409
  fungal infections 405
  Helicobacter pylori 262
  HIV 300
  in vivo expression studies 509
  Leishmania amazonensis 363
  periodontal disease 224
  role of bacterial phospholipases 159
  role of plasminogen 466
  transmissible spongiform encephalopathies 27
pathogenesis-related proteins 297
pathogenicity
  Listeria monocytogenes 272
  Mycobacterium tuberculosis 430
pathogenicity islands 222 (L)
  Escherichia coli 319
  Helicobacter pylori 205, 262, 264 (L)
  Salmonella 320, 343, 431 (L)
pellicle 436
perfringolysin 87
periodontal disease 224, 435
peroxisomes, yeast 502
phage display 25
phospholipases 156, 265 (L)
pili 130, 217
plant cell wall degradation in the rumen 484
plasma cells, longevity 180 (L)
plasmids, rolling circle replication 440
plasminogen, role in bacterial pathogenesis 466
Plasmodium falciparum 213, 463, 465
Plasmodium vivax 214
pneumolysin 454
poliomyelitis, vaccination 14
polymorphonuclear leukocytes 100
population biology, microbial pathogens 304
population genetics
  Candida albicans 253, 254
  Salmonella 318
pore-forming proteins 363
porins 38
Prevotella spp. 483
prions
  and amphotericin B 27
  genotype 331
  see also transmissible spongiform encephalopathies
profilin 272
prostaglandins 276
proto-oncogenes, activation 76
Pseudomonas, avirulence proteins 394
Pseudomonas aeruginosa
  phospholipases 158
  quorum sensing 132, 134
Pseudomonas syringae 490
Pyrobaculum aerophilum, genome sequencing 91
Pyrococcus furiosus, genome sequencing 91

Q
quasispecies 93 (L), 411
quinolones 106
quinupristin–dalfopristin 244
quorum sensing 132, 134, 184

R
RANTES 88
recombination, *Candida albicans* 253, 254
respiratory syncytial virus 60
retrotransposons, DNA repair 173
retroviruses
  actin cytoskeleton rearrangements 144
  endogenous retroviruses and resistance to retroviral infection 313, 339 (L), 385 (L)
reverse transcription, DNA viruses 447
rhinoviruses 60, 229
rhizosphere 496
rhl quorum sensing system 132, 134
Rho proteins and bacterial toxins 282
ribavarin 60
rimantidine 60
RNA editing 1, 2, 189
rolling circle replication 440
rotaviruses 176
RTX haemolysin 455
rumen microbial ecosystem 481
Ruminococcus flavefaciens 484

S
Saccharomyces cerevisiae
  DNA repair by retrotransposons 174
  filamentous growth 450
  genome functional analysis 137
  peroxisomes 502
Salmonella
  apoptosis 204, 263 (L)
  horizontal gene transfer 318
  invasion 127, 129
  pathogenicity islands 343, 431 (L)

type III secretion system 127, 129, 149
Salmonella enterica 357
scrapie 27, 331
secretion
Helicobacter pylori 206
type III systems 110, 127, 129, 148, 396
selfish operon model 345
sheep pulmonary adenomatosis 478
shiga toxin 455
Shigella 149, 201
signal transduction
cytokine networks 455
Epstein–Barr virus reactivation 402
light perception 458
signature-tagged mutagenesis 22, 510
simian virus 40 and p53 115
speciation and selfish operons 358
sporulation, *Bacillus subtilis* 295
Staphylococcus aureus 247
staphylokinase 467
streptococci 5
Streptococcus pneumonia, penicillin resistance 337
Streptococcus pyogenes, genome sequencing 5
streptogramin antibiotics 244
streptokinase 467
stromal cell-derived factor 1 and HIV 89
subtractive hybridization 23
superantigen response 385 (L)
Synechocystis spp., genome sequencing 91
systemic acquired resistance 297

T
T-cell activation 300, 302
T-cell immunity, suppression after measles infection 85
teicoplanin analogs 243
telomere replication 173
α-thalassaemia and resistance to malaria 213
Theileria, cyclin-dependent protein kinases 169, 170
thermotolerance and DNA supercoiling 323
transcription and thermal regulation 324
transformation
pili as receptors 131
Vibrio cholerae strains 163, 178 (L)
transmissibility and virulence 31
transmissible spongiform encephalopathies
and prion genotype 331
bovine spongiform encephalopathy 421
see also prion diseases
transmission factors, insect-vectored microorganisms 171
Treponema pallidum, genome sequencing 91, 135
Trypanosoma brucei 1, 2
trypanosomes, RNA editing 1, 2, 189
tubovesicular membrane network 463, 465
tumor necrosis factor/nerve growth factor receptor family 257
tumorigenesis
jaagsiekte sheep retrovirus 481
p53 and tumor viruses 115, 181 (L)
paracrine model 424, 425
two-component sensory systems 132, 134, 184
two-hybrid analysis 25
Ty elements 174
type III secretion systems 127, 129, 148
and avirulence proteins 396
enteropathogenic *Escherichia coli* 110

U
upper respiratory tract viral infections 58

V
vaccination strategies 14
vaccines
as alternatives to vancomycin 247
canine distemper virus 121
common cold viruses 61
Mycobacterium tuberculosis 430
rotaviruses 176
Staphylococcus aureus 247
streptococci 5
vaccinia virus 145
vacuolating toxin (VacA) 263
vancomycin resistance 240
Vibrio cholerae
gene cassettes 389
strain O139 Bengal 161, 178 (L)
Vibrio fischeri 184
viral entry 257, 258
viral persistence 11, 513
virulence
and transmissibility 31
role of bacterial phospholipases 156
Salmonella 320, 343, 431 (L)
virulence factors
Actinobacillus actinomycetemcomitans 226
Helicobacter pylori 262
techniques for identification 20
type III secretion 148, 489
virulence genes
in vivo expression studies 509
regulation through adhesion 43, 44
virulence mechanisms, techniques for identification 20
virus assembly, hepadnaviruses 447
virus attachment proteins 45, 47
virus databases on-line, Internet resources 434
virus ultrastructure, Internet resources 51
virus–antibody interactions 229

W
white collar proteins 458
whooping cough 14

X
Xanthomonas 394

Y
yeast *see Saccharomyces cerevisiae*
Yersinia
gene expression and adhesion 43, 44
type III secretion systems 149
Yersinia pestis 172, 467
yop genes 43, 44, 148

Author Index

BR – Book Review
H– Horizons
L – Letter

A

Acha-Orbea, H., The role of superantigens in resistance to retroviral infection (L) 385
Adjou, K.T., Deslys, J-P., Demaimay, R. and Dormont, D., Probing the dynamics of prion diseases with amphotericin B 27
Adler, B., Intestinal Spirochaetes in Domestic Animals and Humans (BR) 376
Ahmed, R., *see* Slifka, M. 180
Aktories, K., Rho proteins: targets for bacterial toxins 282
Anderson, D.A., *see* Cowan, R.U. 47
Anderson, R.M., *see* Woolhouse, M.E.J. 421
Appelmelk, B.J., Negrini, R., Moran, A.P. and Kuipers, E.J., Molecular mimicry between *Helicobacter pylori* and the host 70
Appelmelk, B.J., *see* Berg, D.E. 468
Ash, C., Year of the genome 135
Ash, C., Fungal highways (H) 387

B

Bachmann, M.F., *see* Zinkernagel, R.M. 260
Ballario, P. and Macino, G., White collar proteins: PASsing the light signal in *Neurospora crassa* 458
Barbachyn, M., *see* Ford, C.W. 196
Barrow, P.A. and Soothill, J.S., Bacteriophage therapy and prophylaxis: rediscovery and renewed assessment of potential 268
Bäumler, A.J., Pathogenicity islands: important but not unique factors contributing to *Salmonella* virulence: Response (L) 431
Bäumler, A.J., The record of horizontal gene transfer in *Salmonella* 318
Baxter, E.W., *see* Neil, J.C. 115
Benach, J.L., Gebbia, J.A. and Coleman, J.L., A novel approach to explore the role of plasminogen in bacterial pathogenesis: Response (L) 468
Benne, R., *see* Sloof, P. 189
Berenson, J.R., *see* Rettig, M.B. 425
Berg, D.E., Hoffman, P.S., Appelmelk, B.J. and Kusters, J.G., The *Helicobacter pylori* genome sequence: genetic factors for long life in the gastric mucosa 468
Berg, D.E., *see* Covacci, A. 205
Berger, E.A., *see* Carroll, R.G. 302
Bernstein, W., *see* Carroll, R.G. 302
Best, S., Le Tissier, P.R. and Stoye, J.P., Endogenous retroviruses and the evolution of resistance to retroviral infection 313
Best, S., *see* Stoye, J. 339
Bielefeldt-Ohmann, H., Pathogenesis of dengue virus diseases: missing pieces in the jigsaw 409
Bik, E.M., *see* Mooi, F. 161
Bishai, W., Tuberculosis (Current Topics in Microbiology and Immunology 215) (BR) 209
Blacklaws, B.A., Quantification of the reservoir of HIV-1 215
Blacklaws, B., No flies on us (H) 341
Blanchard, A., Montagnier, L. and Gougeon, M-L., Influence of microbial infections on the progression of HIV disease 326
Bolyard, M., Toxins or signals in Dutch elm disease pathogenesis (L) 432
Bonas, U., *see* Van den Ackerveken, G. 394
Bonfante, P., *see* Perotto, S. 496
Brahic, M. and Bureau, J-F., Of genes and germs 48
Braun, D.K., *see* Nicas, T.I. 240
Brown, F., Vaccine Protocols (Methods in Molecular Medicine) (BR) 168
Buchmeier, M.J., *see* Lane, T.E. 9
Buchmeier, M.J., *see* Lane, T.E. 140
Bureau, J-F., *see* Brahic, M. 48
Burrows, J.M., *see* Khanna, R. 64
Burrows, S.R., *see* Khanna, R. 64
Burrows, S.R., *see* Khanna, R. 93

C

Cabello, F., Pathogenicity islands: important but not unique factors contributing to *Salmonella* virulence (L) 431
Cameron, E.R., *see* Neil, J.C. 115
Carrington, M., *see* Kinnaird, J. 170
Carroll, R.G., Riley, J.L., Levine, B.L., Kaushal, S., Bernstein, W., St Louis, D.C. and June, C., Control of HIV co-receptor expression: implications for pathogenesis and treatment: Response (L) 302
Cebula, T.A. and LeClerc, J.E., To be a mutator, or how pathogenic and commensal bacteria can evolve rapidly: Response (L) 428
Chatila, T., *see* Speck, S.H. 399
Chernomordik, L.V., *see* Melikyan, G.B. 349
Chopra, I., Antibiotic and Chemotherapy: Anti-Infective Agents and Their Use in Therapy (7th edn) (BR) 335
Christensen, T., A paradigm for virus-induced demyelinating disease (L) 139
Christie, P.J., The cag pathogenicity island: mechanistic insights (L) 264
Clemens, D.L., *Mycobacterium tuberculosis*: bringing down the wall 383
Clerici, M., Clivio, A. and Shearer, G.M., Resistance to HIV infection: the genes are only part of the solution 2
Clivio, A., *see* Clerici, M. 2
Coleman, J.L., *see* Benach, J.L. 468
Conner, C.P., *see* Heithoff, D.M. 509
Cornelis, G.R., Contact with eukaryotic cells: a new signal triggering bacterial gene expression 43
Covacci, A., Falkow, S., Berg, D.E. and Rappuoli, R., Did the inheritance of a pathogenicity island modify the virulence of *Helicobacter pylori*? 205
Cowan, G.M., *see* Elford, B.C. 463
Cowan, R.U. and Anderson, D.A., The attachment receptor for hepatitis A virus: Response (L) 47
Cudmore, S., Reckmann, I. and Way, M., Viral manipulations of the actin cytoskeleton 142

D

Daenke, S., Immune selection and virus evolution: be cautious of paradigms (L) 92
Davies, J.E. and Wright, G.D., Bacterial resistance to aminoglycoside antibiotics 234
De Cock, K.M., AIDS in the UK. The Making of Policy, 1981–1994 (BR) 124
d'Enfert, C., Microbial transformer (H) 476
Demaimay, R., *see* Adjou, K.T. 27
Deretic, V., Song, J. and Pagán-Ramos, E., Loss of *oxyR* in *Mycobacterium tuberculosis* 367
Deslys, J-P., *see* Adjou, K.T. 27
De Smet, K.A.L., *Mycobacterium tuberculosis*: beyond genome sequencing 429
Devine, S.E., Mariner sets sail 341
Dodet, B., Heseltine, E. and Saliou, P., Rotaviruses in human and veterinary medicine 176
Donnenberg, M.S., Intracellular Parasitism of Microorganisms (BR) 167
Donnenberg, M.S., Kaper, J.B. and Finlay, B.B., Interactions between enteropathogenic *Escherichia coli* and host epithelial cells 109
Donnenberg, M., *Escherichia coli*: Mechanisms of Virulence (BR) 377
Dormont, D., *see* Adjou, K.T. 27
Doyle, R.J., Bacterial Adhesion: Molecular and Ecological Diversity (BR) 165
Draper, J., *see* Mur, L.A.J. 297

E

Ebbole, D.J., Hydrophobins and fungal infection of plants and animals 405
Elford, B.C., Cowan, G.M. and Ferguson, D.J.P., Transport and trafficking in malaria-infected erythrocytes 463
Ernst, E.J., *see* Klepser, M.E. 372

F

Falke, D., Herpes simplex virus and the cytoskeleton (L) 306
Falkow, S., *see* Covacci, A. 205
Falkow, S., *see* Valdivia, R.H. 360
Fan, H., Leukemogenesis by Moloney murine leukemia virus: a multistep process 74
Fan, H., *see* Palmarini, M. 478
Farley, J., The Wellcome Trust Illustrated History of Tropical Diseases (BR) 42
Ferguson, D.J.P., *see* Elford, B.C. 463
Ferrieri, P. and Horaud, T., Unraveling the mysteries of streptococci and their relations with the host 5
Finlay, B.B., *see* Donnenberg, M.S. 109
Fischer, E.R., *see* Hackstadt, T. 288
Fives-Taylor, P.M., *see* Meyer, D.H. 224
Flemington, E., *see* Speck, S.H. 399
Flint, H.J., The rumen microbial ecosystem – some recent developments 483
Foglino, M., *see* Latifi, A. 134
Ford, C.W., Hamel, J.C., Stapert, D., Moerman, J.K., Hutchinson, D.K., Barbachyn, M.R. and Zurenko, G.E., Oxazolidinones: new antibacterial agents 196

G

Gallon, J.R., Cyanobacterial Nitrogen Metabolism and Environmental Biotechnology (BR) 419
Galyov, E.E., Wood, M.W., Mullan, P.B. and Rosqvist, R., *Salmonella* invasion and delivery of protein effectors to mammalian cell cytoplasm: Response (L) 129
Gao, S-J., PCR Protocols for Emerging Infectious Diseases (BR) 125
Garfinkel, D.J., Genetic loose change: how retroelements and reverse transcriptase heal broken chromosomes 173
Gebbia, J.A., *see* Benach, J.L. 468
Gilbert, M.J., Riddell, S.R. and Greenberg, P.D., How viruses hide from T cells: Response (L) 212
Gillespie, S.H. and McHugh, T.D., The biological cost of antimicrobial resistance 337
Godelle, B., *see* Taddei, F. 427
Goebel, W. and Kreft, J., Cytolysins and the intracellular life of bacteria 86
Goldberg, J.B., Targeting mycolyltransferase (H) 307
Goldberg, J.B., Ulcer agent sequence revealed (H) 386
Gooday, G.W., The Mycota Vol. IV: Environmental and Microbial Relationships (BR) 519
Gougeon, M-L., *see* Blanchard, A. 326
Gräser, Y., *see* Vilgalys, R. 254
Gray, K.M., Intercellular communication and group behavior in bacteria 184
Greenberg, P.D., *see* Gilbert, M.J. 212
Groisman, E.A. and Ochman, H., How *Salmonella* became a pathogen 343
Gross, S.S., Pathology of Septic Shock (Current Topics in Microbiology and Immunology) (BR) 250

H

Hackstadt, T., Fischer, E.R., Scidmore, M.A., Rockey, D.D. and Heinzen, R.A., Origins and functions of the chlamydial inclusion 288
Hackstadt, T., The chlamydial inclusion membrane as an engine of survival: Response (L) 305
Hajduk, S.L., Defining the editing 'reaction' 1
Haldar, K., Lauer, S.A. and Rathod, P.K., Transport and trafficking in malaria-infected erythrocytes: Response (L) 465
Hall, R.M., *see* Recchia, G.D. 389
Hamel, J.C., *see* Ford, C.W. 196
Hancock, R.E.W., The bacterial outer membrane as a drug barrier 37
Hantman, M.J., *see* Scherer, C.A. 127
Harder, T.C. and Osterhaus, A.D.M.E., Canine distemper virus – a morbillivirus in search of new hosts? 120
Harry, E.J., Illuminating the force: bacterial mitosis? 295
He, S.Y., Hrp-controlled interkingdom protein transport: learning from flagellar assembly? 489 (*also see* Corrigendum in January 1998 issue)
Heffron, F., *see* Lindgren, S.W. 263
Heidmann, S., *see* Stuart, K. 2
Heinzen, R.A., *see* Hackstadt, T. 288
Heithoff, D.M., Conner, C.P. and Mahan, M.J., Dissecting the biology of a pathogen during infection 509
Henderson, B., Wilson, M. and Wren, B., Are bacterial exotoxins cytokine network regulators? 454
Hengartner, H., *see* Zinkernagel, R.M. 260
Heseltine, E., *see* Dodet, B. 176
Hoffman, P.S., *see* Berg, D.E. 468
Horaud, T., *see* Ferrieri, P. 5
Horta, M.F., Pore-forming proteins in pathogenic protozoan parasites 363
Hu, J., *see* Seeger, C. 447
Hunter, N., PrP genetics in sheep and the implications for scrapie and BSE 331
Hutchinson, D.K., *see* Ford, C.W. 196

I

Iglewski, B.H., *see* Pesci, E.C. 132

J

Jackson, G., Prion Diseases of Mammals and Yeast: Molecular Mechanisms and Genetic Features (BR) 519
Jerse, A.E. and Rest, R.F., Adhesion and invasion by the pathogenic neisseria 217
Johnston, L.H., *see* Kramer, K.M. 169
Johnston, S.L., Problems and prospects of developing effective therapy for common cold viruses 58
June, C.H., *see* Carroll, R.G. 302

K

Kable, M., *see* Stuart, K. 2
Kaper, J.B., *see* Donnenberg, M.S. 109
Kaushal, S., *see* Carroll, R.G. 302
Keeling, M.J., Modelling the persistence of measles 513
Kenton, P., *see* Mur, L.A.J. 297
Ketley, J.M., *see* Wooldridge, K.G. 96
Khanna, R. and Burrows, S.R., Immune selection and virus evolution: be cautious of paradigms: Response (L) 93
Khanna, R., Burrows, S.R. and Burrows, J.M., The role of cytotoxic T lymphocytes in the evolution of genetically stable viruses 64
King, C.H., *see* Quinn, F.D. 20
Kinnaird, J. and Carrington, M., An unwelcome partner: parasitic choreography of the host cell cycle?: Response (L) 170
Klein, G., *see* Szekely, L. 424
Klepser, M.E., Ernst, E.J. and Pfaller, M.A., Update on antifungal resistance 372
Knowles, D.J.C., New strategies for antibacterial drug design 379
Kolenbrander, P.E., Biofilm developmental biology (L) 475
Koup, R.A., *see* Landau, N.R. 4
Kramer, K.M. and Johnston, L.H., An unwelcome partner: parasitic choreography of the host cell cycle? 169
Kreft, J., *see* Goebel, W. 86
Kron, S.J., Filamentous growth in budding yeast 450
Kuehn, M.J., Establishing communication via Gram-negative bacterial pili 130
Kuehn, M., Cryptococcus and calcineurin (H) 307
Kuehn, M., Leaping into the outer membrane (H) 387
Kuipers, E.J., *see* Appelmelk, B.J. 70
Kündig, T.M., *see* Zinkernagel, R.M. 260
Kurstak, E., The Molecular Medicine of Viral Hepatitis (BR) 520
Kusters, J.G., *see* Berg, D.E. 468

L

Lampert, I.A., *see* Michie, C.A. 180
Landau, N.R. and Koup, R.A., Resistance to HIV infection: the genes are only part of the solution: Response (L) 4
Lane, T.E. and Buchmeier, M.J., A paradigm for virus-induced demyelinating disease: Response (L) 140
Lane, T.E. and Buchmeier, M.J., Murine coronavirus infection: a paradigm for virus-induced demyelinating disease 9
Latifi, A., Foglino, M. and Lazdunski, A., The chain of command in *Pseudomonas* quorum sensing: Response (L) 134
Lauer, S., *see* Haldar, K. 465
Lawrence, J.G., Selfish operons and speciation by gene transfer 355
Lazdunski, A., *see* Latifi, A. 134

LeClerc, J.E., *see* Cebula, T.A. 428
Lee, C.A., Type III secretion systems: machines to deliver bacterial proteins into eukaryotic cells? 148
Le Tissier, P.R., *see* Best, S. 313
Le Tissier, P.R., *see* Stoye, J. 339
Levine, B.L., *see* Carroll, R.G. 302
Lindgren, S.W. and Heffron, F., To sting or be stung: bacteria-induced apoptosis (L) 263
Lipsitch, M. and Moxon, E.R., Virulence and transmissibility of pathogens: what is the relationship? 31
Lipsitch, M., Evolution in health and disease 303
Locarnini, S.A., The attachment receptor for hepatitis A virus 45
Lomonossoff, G.P., The Plant Viruses Vol. 5: Polyhedral Virions with Bipartite RNA genomes (BR) 82
Lottenberg, R., A novel approach to explore the role of plasminogen in bacterial pathogenesis 466

M
Macino, G., *see* Ballario, P. 458
Mahan, M.J., *see* Heithoff, D.M. 509
Mahan, M.J., Genetic Analysis of Pathogenic Bacteria: A Laboratory Manual (BR) 84
Manning, P.A., *see* Stroeher, U.H. 178
Matic, I., Adaptation by mutator alleles (H) 307
Matic, I., Rates of change and exchange (H) 387
Matic, I., *see* Taddei, F. 427
Maxwell, A., DNA gyrase as a drug target 102
McCormick, F. and Wood, D.A., The role of p53 in virally associated tumors (L) 181
McHugh, T.D., *see* Gillespie, S.H. 337
McMichael, A., How viruses hide from T cells 211
Melikyan, G.B. and Chernomordik, L.V., Membrane rearrangements in fusion mediated by viral proteins 349
Menzel, R., *see* Tse-Dinh, Y-C. 323
Metting, F.B. and Romine, M.F., Microbial genomics: the floodgates open 91
Meyer, D.H. and Fives-Taylor, P.M., The role of *Actinobacillus actinomycetemcomitans* in the pathogenesis of periodontal disease 224
Michie, C.A. and Lampert, I.A., B cell longevity and immunological memory (L) 180
Miller, S.I., *see* Scherer, C.A. 127
Mitchell, T.G., *see* Vilgalys, R. 254
Moerman, J.K., *see* Ford, C.W. 196
Montagnier, L., *see* Blanchard, A. 326
Montgomery, R.I., *see* Spear, P.G. 258
Mooi, F. and Bik, E.M., The evolution of epidemic *Vibrio cholerae* strains 161
Moran, A.P., Pathogenesis of gastric *Helicobacter pylori* 262
Moran, A.P., *see* Appelmelk, B.J. 70
Moser, B., Chemokines and HIV: a remarkable synergism 88
Moulder, J.W., The chlamydial inclusion membrane as an engine of survival (L) 305
Moxon, E.R., *see* Lipsitch, M. 31
Mullan, P.B., *see* Galyov, E.E. 129
Mur, L.A.J., Kenton, P. and Draper, J., Something in the air: volatile signals in plant defence 297

N
Negrini, R., *see* Appelmelk, B.J. 70
Neil, J.C., Cameron, E.R. and Baxter, E.W., p53 and tumour viruses: catching the guardian off-guard 115
Nemerow, G.R., *see* Stewart, P.L. 229
Newman, G.W., *see* Quinn, F.D. 20
Neyfakh, A.A., Natural functions of bacterial multidrug transporters 309
Nicas, T.I., Zeckel, M.L. and Braun, D.K., Beyond vancomycin: new therapies to meet the challenge of glycopeptide resistance 240
Nokes, D.J. and Swinton, J., Vaccination in pulses: a strategy for global eradication of measles and polio? 14
Nordfelth, R., *see* Pettersson, J. 44
Norrby, E., Concepts in Vaccine Development (BR) 208
Nutman, T.B., Immunity to Parasites: How Parasitic Infections are Controlled (2nd edn) (BR) 250

O
Ochman, H., Miles of isles (L) 222
Ochman, H., *see* Groisman, E.A. 343
Ogasawara, K., A dual personality (H) 477
Orren, A., Erratum: How do mammals distinguish between pathogens and non-self? 175
Osterhaus, A.D.M.E., *see* Harder, T.C. 120

P
Pagán-Ramos, E., *see* Deretic, V. 367
Pallen, M., *Escherichia coli* genome sequence (H) 433
Pallen, M., Microbial genomics (H) 341
Pallen, M., Microbial genomics (H) 386
Palmarini, M., Fan, H. and Sharp, J.M., Sheep pulmonary adenomatosis: a unique model of retrovirus-associated lung cancer 478
Palmer, R.J. and White, D.C., Developmental biology of biofilms: implications for treatment and control 435
Paskewitz, S.M., Transmission factors for insect-vectored microorganisms 171
Pasvol, G., *see* Wilkinson , R.J. 213
Perotto, S. and Bonfante, P., Bacterial associations with mycorrhizal fungi: close and distant friends in the rhizosphere 496
Pesci, E.C. and Iglewski, B.H., The chain of command in *Pseudomonas* quorum sensing 132
Pettersson, J., Nordfelth, R. and Wolf-Watz, H., Contact with eukaryotic cells: a new signal triggering bacterial gene expression: Response (L) 44
Pfaller, M.A., *see* Klepser, M.E. 372
Pollack, J.D., *Mycoplasma* genes: a case for reflective annotation 413
Poole, R.K., Insights into the natural function of bacterial multidrug transporters (L) 340
Porter, R., Cholera in Post-Revolutionary Paris: A Cultural History (BR) 83
Portnoy, D.A., *see* Smith, G.A. 272
Postgate, J., Science, Vine and Wine in Modern France (BR) 335
Presber, W., *see* Vilgalys, R. 254

Q
Qi, H., *see* Tse-Dinh, Y-C. 323
Quinn, F.D., Newman, G.W. and King, C.H., In search of virulence factors of human bacterial disease 20

R
Radman, M., *see* Taddei, F. 427
Rappuoli, R., *see* Covacci, A. 205
Rasooly, A. and Rasooly, R.S., How rolling circle plasmids control their copy number 440
Rasooly, R.S., *see* Rasooly, A. 440
Rathod, P.K., *see* Haldar, K. 465
Recchia, G.D. and Hall, R.M., Origins of the mobile gene cassettes found in integrons 389
Reckmann, I., *see* Cudmore, S. 142
Resh, M.D., Right on target (H) 476
Rest, R.F., *see* Jerse, A.E. 217
Rettig, M.B., Said, J.W. and Berenson, J.R., Multiple myeloma and Kaposi's sarcoma-associated herpesvirus – a paracrine model of tumorigenesis?: Response (L) 425
Riddell, S.R., *see* Gilbert, M.J. 212
Riley, J.L., *see* Carroll, R.G. 302
Rockey, D.D., *see* Hackstadt, T. 288
Romine, M.F., *see* Metting, F.B. 91
Rosqvist, R., *see* Galyov, E.E. 129
Rowland-Jones, S. and Tan, R., Control of HIV co-receptor expression: implications for pathogenesis and treatment 300

S
Said, J.W., *see* Rettig, M.B. 425
St Louis, D.C., *see* Carroll, R.G. 302
Saliou, P., *see* Dodet, B. 176
Salmi, A.A., Suppression of T-cell immunity after measles infection: is the puzzle solved? 85
Sansonetti, P.J., *see* Zychlinsky, A. 201
Santoro, M.G., Antiviral activity of cyclopentenone prostanoids 276

Scherer, C.A., Hantman, M.J. and Miller, S.I., *Salmonella* invasion and delivery of protein effectors to mammalian cell cytoplasm 127
Schiavo, G., The 'face' of VacA (H) 477
Schönian, G., *see* Vilgalys, R. 254
Scidmore, M.A., *see* Hackstadt, T. 288
Seeger, C. and Hu, J., Why are hepadnaviruses DNA and not RNA viruses? 447
Seiwert, S., *see* Stuart, K. 2
Sharp, J.M., *see* Palmarini, M. 478
Shearer, G.M., *see* Clerici, M. 2
Sim, B.K.L., *see* Sinnis, P. 52
Sinnis, P. and Sim, B.K.L., Cell invasion by the vertebrate stages of *Plasmodium* 52
Slifka, M. and Ahmed, R., B cell longevity and immunological memory: Response (L) 180
Slifka, M., Hazardous microbial waste (H) 308
Slifka, M., Viral IL-6 linked to cancer? (H) 342
Sloof, P. and Benne, R., RNA editing in kinetoplastid parasites: what to do with U 189
Slusarenko, A., Molecular Aspects of Pathogenicity and Resistance: Requirement for Signal Transduction (BR) 251
Smith, G.A. and Portnoy, D.A., How the *Listeria monocytogenes* ActA protein converts actin polymerization into a motile force 272
Song, J., *see* Deretic, V. 367
Songer, J.G., Bacterial phospholipases and their role in virulence 156
Soothill, J.S., *see* Barrow, P.A. 268
Spear, P.G., Montgomery, R.I. and Warner, M.S., Virus entry: two receptors are better than one: Response (L) 258
Speck, S.H., Chatila, T. and Flemington, E., Reactivation of Epstein–Barr virus: regulation and function of the *BZLF1* gene 399
Spitzer, E.D., ASM Pocket Guide to Clinical Microbiology (BR) 210
Sprent, J., T cells and memory lapses 259
Stapert, D., *see* Ford, C.W. 196
Stewart, P.L. and Nemerow, G.R., Recent structural solutions for antibody neutralization of viruses 229
Stoye, J.P., *see* Best, S. 313
Stoye, J., Le Tissier, P.R. and Best, S., Endogenous retrovirus sequences and their usefulness to the host: Response (L) 339
Stroeher, U.H. and Manning, P.A., *Vibrio cholerae* serotype O139: swapping genes for surface polysaccharide biosynthesis (L) 178
Stuart, K., Kable, M., Heidmann, S. and Seiwert, S., Defining the editing 'reaction': Response (L) 2
Swinton, J., *see* Nokes, D.J. 14
Symer, D., Super HHV-8 (H) 434
Szekely, L. and Klein, G., Multiple myeloma and Kaposi's sarcoma-associated herpesvirus – a paracrine model of tumorigenesis? 424

T

Taddei, F., Matic, I., Godelle, B. and Radman, R., To be a mutator, or how pathogenic and commensal bacteria can evolve rapidly 427
Tan, R., *see* Rowland-Jones, S. 300
Targett, G.A.T., Malaria Vaccine Development: A Multi-Immune Response Approach (BR) 166
Taylor, D.N., Cholera and the Ecology of *Vibrio cholerae* (BR) 294
Telford, J.L., *Helicobacter pylori* Protocols (BR) 420
Tibayrenc, M., Are *Candida albicans* natural populations subdivided? 253
Titball, R.W., Bacterial phospholipases (L) 265
Tran Van Nhieu, G., Modelling the way in (H) 386
Trono, D., Morphogenesis and Maturation of Retroviruses (Current Topics in Microbiology and Immunology) (BR) 126
Tse-Dinh, Y-C., Qi, H. and Menzel, R., DNA supercoiling and bacterial adaptation: thermotolerance and thermoresistance 323
Tufaro, F., Virus entry: two receptors are better than one 257

V

Valdivia, R.H. and Falkow, S., Probing bacterial gene expression within host cells 360
Van den Ackerveken, G. and Bonas, U., Bacterial avirulence proteins as triggers of plant disease resistance 394
van der Klei, I.J. and Veenhuis, M., Yeast peroxisomes: function and biogenesis of a versatile cell organelle 502
van der Kuyl, A., Endogenous retrovirus sequences and their usefulness to the host (L) 339
Veenhuis, M., *see* van der Klei, I.J. 502
Vilgalys, R., Gräser, Y., Schönian, G., Presber, W. and Mitchell, T.G. Are *Candida albicans* natural populations subdivided?: Response (L) 254

W

Warner, M.S., *see* Spear, P.G. 258
Way, M., *see* Cudmore, S. 142
Whatley, S., Prion Diseases (BR) 375
White, D.C., *see* Palmer, R.J. 435
Whittaker, G., A holey virus (H) 433
Whittaker, G., Novel common transport (H) 308
Whittaker, G., The nuts and bolts of HIV (H) 476
Wilkinson , R.J. and Pasvol, G., Host resistance to malaria runs into swampy water 213 (*also see* Erratum p. 306)
Wilson, M., *see* Henderson, B. 454
Wolf-Watz, H., *see* Pettersson, J. 44
Wood, D.A., *see* McCormick, F. 181
Wood, M.W., *see* Galyov, E.E. 129
Woodland, D.L., Immunobiology Bookshelf (BR) 336
Wooldridge, K.G. and Ketley, J.M., *Campylobacter*–host cell interactions 96
Woolhouse, M.E.J. and Anderson, R.M., Understanding the epidemiology of BSE 421
Wren, B., A tale of two toxins (H) 307
Wren, B., IVET and *Yersinia* (H) 433
Wren, B., *see* Henderson, B. 454
Wright, G.D., *see* Davies, J.E. 234

Z

Zeckel, M.L., *see* Nicas, T.I. 240
Zinkernagel, R.M., Bachmann, M.F., Kündig, T.M. and Hengartner, H., T cells and memory lapses: Response (L) 260
Zurenko, G.E., *see* Ford, C.W. 196
Zychlinsky, A. and Sansonetti, P.J., Apoptosis as a proinflammatory event: what can we learn from bacteria-induced cell death? 201

Index of Books Reviewed

B

Belyi, Y.F., *Intracellular Parasitism of Microorganisms* 167

Berridge, V., *AIDS in the UK. The Making of Policy, 1981–1994* 124

C

Clayton, C.L. and Mobley, H.L.T., eds, *Helicobacter pylori Protocols* 420

Collinge, J. and Palmer, M.S., eds, *Prion Diseases* 375

Cox, F.E.G., ed., *The Wellcome Trust Illustrated History of Tropical Diseases* 42

D

Drasar, B.S. and Forrest, B.D., eds, *Cholera and the Ecology of Vibrio cholerae* 294

F

Fletcher, M., ed., *Bacterial Adhesion: Molecular and Ecological Diversity* 165

H

Hampson, D.J. and Stanton, T.B., eds, *Intestinal Spirochaetes in Domestic Animals and Humans* 376

Harrison, B.D. and Murant, A.F., eds, *The Plant Viruses Vol. 5: Polyhedral Virions with Bipartite RNA genomes* 82

Harrison, T.J. and Zuckerman, A.J., *The Molecular Medicine of Viral Hepatitis* 520

Hoffman, S.L., ed., *Malaria Vaccine Development: A Multi-Immune Response Approach* 166

J

Janeway, C.A., Jr and Travers, P.; Rosen, F.S. and Geha, R.S.; Alt, F. and Marrack, P., eds, *Immunobiology Bookshelf* 336

K

Kaufmann, S.H.E., ed., *Concepts in Vaccine Development* 208

Kräusslich, H-G., ed., *Morphogenesis and Maturation of Retroviruses (Current Topics in Microbiology and Immunology)* 126

Kudlick, C.J., *Cholera in Post-Revolutionary Paris: A Cultural History* 83

M

Maloy, S.R., Stewart, V.J. and Taylor, R.K., eds, *Genetic Analysis of Pathogenic Bacteria: A Laboratory Manual* 84

Mills, D., Kunoh, H., Keen, N. and Mayama, S., eds, *Molecular Aspects of Pathogenicity and Resistance: Requirement for Signal Transduction* 251

Murray, P.R., *ASM Pocket Guide to Clinical Microbiology* 210

O

O'Grady, F., Lambert, H.P., Finch, R.G. and Greenwood, D., eds, *Antibiotic and Chemotherapy: Anti-Infective Agents and Their Use in Therapy (7th edn)* 335

P

Paul, H.W., *Science, Vine and Wine in Modern France* 335

Persing, D.H., ed., *PCR Protocols for Emerging Infectious Diseases* 125

R

Rai, A.K., ed., *Cyanobacterial Nitrogen Metabolism and Environmental Biotechnology* 419

Rietschel, E.T. and Wagner, H., eds, *Pathology of Septic Shock (Current Topics in Microbiology and Immunology)* 250

Robinson, A., Farrar, G.H. and Wiblin, C.N., eds, *Vaccine Protocols (Methods in Molecular Medicine)* 168

S

Shinnick, T.M., ed., *Tuberculosis (Current Topics in Microbiology and Immunology 215)* 209

Sussman, M., ed., *Escherichia coli: Mechanisms of Virulence* 377

W

Wakelin, D., *Immunity to Parasites: How Parasitic Infections are Controlled (2nd edn)* 250

Wicklow, D.T. and Söderström, B., *The Mycota Vol. IV: Environmental and Microbial Relationships* 519

Wickner, R.B., *Prion Diseases of Mammals and Yeast: Molecular Mechanisms and Genetic Features* 519

TECHNICAL TIPS ONLINE

Bags of free tips for molecular biologists

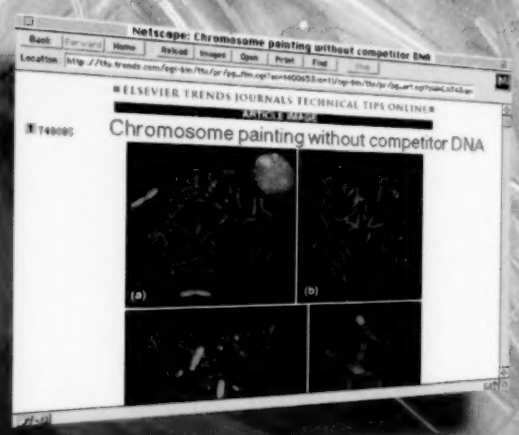
A unique online journal of peer-reviewed molecular biology techniques articles

http://www.elsevier.com/locate/tto
in Europe http://www.elsevier.nl/locate/tto

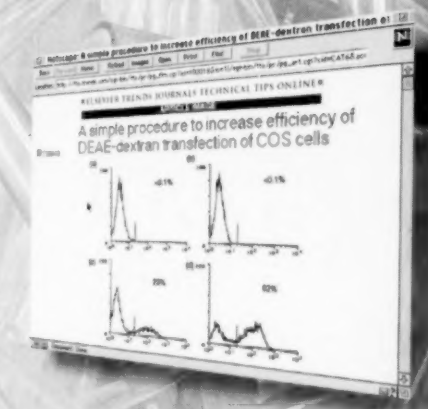
KEY FEATURES

- free to use
- coverage of: PCR, gene expression, cloning & sequencing, and much more
- discussion/feedback for all articles
- rapid publication
- EMBASE/MEDLINE abstracts
- information about products cited in articles
- new product information

http://www.elsevier.com/locate/tto
in Europe http://www.elsevier.nl/locate/tto


Netscape: Chromosome painting without competitor DNA
ELSEVIER TRENDS JOURNALS TECHNICAL TIPS ONLINE
ARTICLE IMAGE
Chromosome painting without competitor DNA

Netscape: A quick and safe method for destaining Coomassie-Blue-stained protein g
ELSEVIER TRENDS JOURNALS TECHNICAL TIPS ONLINE
ARTICLE IMAGE
A quick and safe method for destaining Coomassie-Blue-stained protein gels


ELSEVIER TRENDS JOURNALS TECHNICAL TIPS ONLINE
ARTICLE IMAGE
A simple procedure to increase efficiency of DEAE-dextran transfection of COS cells

ELSEVIER TRENDS JOURNALS